

**Notice of Allowability**

Application No.

09/909,624

Examiner

Esaw T. Abraham

Applicant(s)

LI, SHENG

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amdt filed on 11/23/05.
2. ☒ The allowed claim(s) is/are 1-14 and 15-24 (renumbered as 1-23).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
ALBERT DEADY  
SUPERVISING PATENT EXAMINER  
TECHNICAL CENTER 2108

*Examiner's statement for reason for allowance*

1. Claims **1-15 and 17-24** have been allowed.

The following is an examiner's statement for allowance:

**As per claim 1:**

The prior art (U.S. PN: 6,609,224) of record (Jonsson) in figure 1 disclose a typical packet (10) conforming to the IP-based transport layer protocols, such as UDP (User Datagram Protocol) and RTP (Real-time Transport Protocol) whereby the packet is made of a header section (12) (including source port, destination port, length and checksum) and a payload section (14) (see col. 1, lines 24-47). Further, Jonsson teach that checksums are used by the UDP and RTP transport layer protocols to detect errors in a single data packet and such transport layer checksums are calculated to provide coverage for the entire data packet (e.g., header and payload), included in the transport layer header as one of the header fields (see in fig. 1 element 16) and calculation of the checksum is performed by adding together all the octets of data in the packet to be transmitted (see col. 2, lines 48-60). Further, the prior art (U.S. PN: 5,844,918) of record (Kato) in figure 5 teach a segmentation circuit (14) divides a transmission data into a fixed length (see figure 5b), an error detecting code addition circuit (16) added an error detecting code (CRC) to the thus-divided data segments (see figure 5c), the header addition circuit (20) further appends a packet header to each data segment complete with the CRC code, whereby a transmission data packet is generated (see figure 5d and col. 5, lines 28-35). However, the prior art taken singly or in combination fail to teach, anticipate, suggest, or render obvious a method for delivering data within a data packet comprising the steps of: disabling a data integrity function of said data packet, said data integrity function configured for determining whether

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data within said data packet is valid, calculating data integrity information for each of a plurality of independent data segments to be transmitted within said data packet, and transmitting, within said data packet, said plurality of independent data segments and said data integrity information calculated for each of said plurality of independent data segments. Consequently, claim 1 is allowed over the prior art.

Claims 2-8, which is/are directly or indirectly dependent/s of claim 1 are also allowable over the prior art of record.

**As per claim 9:**

The prior art (U.S. PN: 6,609,224) of record (Jonsson) in figure 1 disclose a typical packet (10) conforming to the IP-based transport layer protocols, such as UDP (User Datagram Protocol) and RTP (Real-time Transport Protocol) whereby the packet is made of a header section (12) (including source port, destination port, length and checksum) and a payload section (14) (see col. 1, lines 24-47). Further, Jonsson teach that checksums are used by the UDP and RTP transport layer protocols to detect errors in a single data packet and such transport layer checksums are calculated to provide coverage for the entire data packet (e.g., header and payload), included in the transport layer header as one of the header fields (see in fig. 1 element 16) and calculation of the checksum is performed by adding together all the octets of data in the packet to be transmitted (see col. 2, lines 48-60). Further, the prior art (U.S. PN: 5,844,918) of record (Kato) in figure 5 teach a segmentation circuit (14) divides a transmission data into a fixed length (see figure 5b), an error detecting code addition circuit (16) added an error detecting code (CRC) to the thus-divided data segments (see figure 5c), the header addition circuit (20) further appends a packet header to each data segment complete with the CRC code, whereby a

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transmission data packet is generated (see figure 5d and col. 5, lines 28-35). However, the prior art taken singly or in combination fail to teach, anticipate, suggest, or render obvious an apparatus for delivering data within a data packet comprising a data integrity calculation module for calculating data integrity information for each of a plurality of independent data segments, a packet generation module for encapsulating, within said data packet, said plurality of independent data segments and said data integrity information calculated for each of said plurality of independent data segments and disabling a data integrity function of said data packet, and a transmission module for transmitting said data packet over a network to a destination. Consequently, claim 9 is allowed over the prior art.

Claims 10-14, which is/are directly or indirectly dependent/s of claim 9 are also allowable over the prior art of record.

**As per claim 15:**

The prior art (U.S. PN: 6,609,224) of record (Jonsson) in figure 1 disclose a typical packet (10) conforming to the IP-based transport layer protocols, such as UDP (User Datagram Protocol) and RTP (Real-time Transport Protocol) whereby the packet is made of a header section (12) (including source port, destination port, length and checksum) and a payload section (14) (see col. 1, lines 24-47). Further, Jonsson teach that checksums are used by the UDP and RTP transport layer protocols to detect errors in a single data packet and such transport layer checksums are calculated to provide coverage for the entire data packet (e.g., header and payload), included in the transport layer header as one of the header fields (see in fig. 1 element 16) and calculation of the checksum is performed by adding together all the octets of data in the packet to be transmitted (see col. 2, lines 48-60). Further, the prior art (U.S. PN: 5,844,918) of

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record (Kato) in figure 5 teach a segmentation circuit (14) divides a transmission data into a fixed length (see figure 5b), an error detecting code addition circuit (16) added an error detecting code (CRC) to the thus-divided data segments (see figure 5c), the header addition circuit (20) further appends a packet header to each data segment complete with the CRC code, whereby a transmission data packet is generated (see figure 5d and col. 5, lines 28-35). However, the prior art taken singly or in combination fail to teach, anticipate, suggest, or render obvious providing a UDP datagram, the UDP datagram having a header and a payload, the payload comprised of a plurality of independent data segments, the header comprising a source port field, a destination port field, a length field, and a datagram checksum setting the datagram checksum to zero; adding a checksum to each independent data segment in the payload; and sending the modified datagram through to a destination port. Consequently, claim 15 is allowed over the prior art.

**As per claim 17:**

The prior art (U.S. PN: 6,609,224) of record (Jonsson) in figure 1 disclose a typical packet (10) conforming to the IP-based transport layer protocols, such as UDP (User Data gram Protocol) and RTP (Real-time Transport Protocol) whereby the packet is made of a header section (12) (including source port, destination port, length and checksum) and a payload section (14) (see col. 1, lines 24-47). Further, Jonnson teach that checksums are used by the UDP and RTP transport layer protocols to detect errors in a single data packet and such transport layer checksums are calculated to provide coverage for the entire data packet (e.g., header and payload), included in the transport layer header as one of the header fields (see in fig. 1 element 16) and calculation of the checksum is performed by adding together all the octets of data in the packet to be transmitted (see col. 2, lines 48-60). Further, the prior art (U.S. PN: 5,844,918) of

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record (Kato) in figure 5 teach a segmentation circuit (14) divides a transmission data into a fixed length (see figure 5b), an error detecting code addition circuit (16) added an error detecting code (CRC) to the thus-divided data segments (see figure 5c), the header addition circuit (20) further appends a packet header to each data segment complete with the CRC code, whereby a transmission data packet is generated (see figure 5d and col. 5, lines 28-35). However, the prior art taken singly or in combination fail to teach, anticipate, suggest, or render obvious a machine-readable medium having program code stored thereon which, when executed by a machine, cause said machine to perform the operations of: disabling a data integrity function of a data packet, said data integrity function configured for determining whether data within said data packet is valid; calculating data integrity information for each of a plurality of independent data segments to be transmitted within said data packet', and transmitting, within said data packet, said plurality of independent data segments and said data integrity information calculated for each of said plurality of independent data segments. Consequently, claim 17 is allowed over the prior art.

Claims **18-23**, which is/are directly or indirectly dependent/s of claim 17 are also allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Conclusion*

2. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Esaw Abraham whose telephone number is (571) 272-3812. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are successful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone numbers for the organization where this application or proceeding is assigned (571) 273-8300.

Information regarding the status of an Application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or PUBLIC PAIR. Status information for unpublished applications is available through Private Pair only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Esaw Abraham*

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